

## CLAIMS

1. A method of forming and transmitting signals from a fire alarm unit to a receiving-monitoring instrument via a communication line with the aid of a transmitting device which is a part of the alarm unit, the method comprising self-testing of the operability of 5 the alarm unit components and determining the value of a monitored fire factor, **characterized** in that the alarm unit is additionally provided with a logic device, with the aid of which the value of the monitored fire factor is compared with the permissible value, while the signals indicating the operability of the alarm unit as judged from the results of its self-testing and indicating that the permissible value of the monitored fire factor has been exceeded are transmitted in an analog mode.

10 2. The method as claimed in claim 1, **characterized** in that the signal indicating that the permissible value of the monitored fire factor has been exceeded is transmitted by varying and fixing the output resistance of the transmitting device.

15 3. The method as claimed in claim 1, **characterized** in that the signal indicating correct operation or failure of the alarm unit as judged from the results of its self-testing is transmitted by short-time periodic variation of the output resistance of the transmitting device.

20 4. The method as claimed in claim 1, **characterized** in that the alarm unit is additionally provided with a normally closed switch, connected in parallel to the alarm unit with a device limiting the voltage drop at the alarm unit to a value of 1.5—6 V, the signal indicating correct operation of the alarm unit being transmitted by opening the switch.

25 5. The method as claimed in claim 1, **characterized** in that the alarm unit is additionally provided with a normally open line switch inserted into a communication line gap after the alarm unit, the communication line is provided with an end resistor, and the signal indicating failure of the alarm unit is transmitted by closing the line switch.

6. The method as claimed in claim 1, **characterized** in that the alarm unit is additionally provided with a normally closed line switch inserted into a communication line gap after the alarm unit, the communication line is provided with an end resistor, and the signal indicating failure of the alarm unit is transmitted by opening the line switch.

5        7. A method of forming and transmitting signals from a fire alarm unit to a receiving-monitoring instrument via a bipolar communication line with the aid of a transmitting device which is a part of the alarm unit, the method comprising self-testing of the operability of the alarm unit components and determining the value of a monitored fire factor, **characterized** in that the alarm unit is additionally provided with a gate and a logic device, with the aid of which the value of the monitored fire factor is compared with the permissible value, and the signals indicating the operability of the alarm unit as judged from the results of its self-testing and the signals indicating that the permissible value of the monitored fire factor has been exceeded are transmitted in an analog mode.

10        8. The method as claimed in claim 7, **characterized** in that the alarm unit is additionally provided with a normally closed switch, connected in parallel to the alarm unit and with a gate connected in series with it which is open under reverse polarity conditions in the communication line, and the alarm unit operability signal is transmitted by opening the switch.

15        9. The method as claimed in claim 7, **characterized** in that the alarm unit is additionally provided with a normally open line switch inserted into a communication line gap after the alarm unit, the communication line is provided with an end resistor, a gate, open under forward polarity conditions in the communication line, is connected in parallel to the line switch, and the alarm unit operability signal is transmitted by closing the line switch.